

I 10664-63

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 4, 1963,
1293-1294

TEXT: Ammonolysis of methylvinylchlorosilane and
methylallyldichlorosilane is performed. The reaction proceeds
with unlimited radicals attached to the silicon atom. The
and the properties of the silazanes are determined.

SUBMITTED: April 27, 1962

kes/ku
Card 1/1

ACCESSION NR: AP4028548

S/0191/64/000/004/0027/0029

AUTHOR: Kuznetsova, A. G.; Andrianov, K. A.; Zhinkin, D. Ya.

TITLE: Formation of polymers by the hydrolytic co-condensation of diethyldichlorosilane (or dimethyldichlorosilane) and phenyltrichlorosilane

SOURCE: Plasticheskiye massy*, no. 4, 1964, 27-29

TOPIC TAGS: siloxane polymer, hydrolytic co condensation, diethyl-dichlorosilane, phenyltrichlorosilane, polydialkylphenylhydroxysiloxane copolymer, polydialkylphenylsiloxane copolymer, hydrolysis rate, reaction mechanism

ABSTRACT: This work was conducted to explain the possible mechanism by which the polymers are formed during hydrolytic condensation of equimolar mixtures of diethyldichlorosilane (I) or dimethyldichlorosilane (II) and phenyltrichlorosilane (III). The chemical composition (Si and OH content) and molecular weight distribution of the polymers were obtained by reaction of equimolar amounts of I (or II) with III; of diethylsilanediol (IV) (or dimethylsilanediol (V)) with phenylsilanetriol (VI); and of IV with III. Regardless of the initial monomer, the product

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obtained was $[R_2SiOC_6H_5SiO(OH)]_m \cdot [R_2SiOC_6H_5SiO_{1.5}]_n$, the copolymer of polydialkylphenylhydroxy- and polydialkylphenyl-siloxanes. In the various products the m:n ratio varied from 0.31 to 0.73 and (m+n) averaged 3—7. It is concluded that the polymers resulting from the hydrolytic co-condensation of the silanes are formed through a stage in which the corresponding organosilanols are condensed or formed by direct interaction of the organochlorosilane with the organosilanol, the predominance of the reaction being determined by the hydrolytic condensation conditions. No homopolymers were formed. In excess water the product always contains an equimolar ratio of dialkyl- and phenyl-siloxy groups. In insufficient water, when III is hydrolysed first, the product does not contain a 1:1 ratio of dialkyl- and phenyl siloxy groups. One of the causes for the formation of the copolymer with the equimolar ratio during the hydrolytic condensation of I (or II) with III or during condensation of the silanols IV (or(V)) with VI is attributed to the difference in influence of the alkyl and the phenyl radicals on the charges of the Si atoms in the original monomer. The alkyl reduces the positive charge and the phenyl increases the positive charge, and interaction occurs between these monomers to form the most stable system - copolymers with alternating monomer units in the molecule. Orig. art. has: 1 table and 4 formulas.

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"APPROVED FOR RELEASE: 07/19/2001

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L 16398-65

AC 6555

was also shown that N-methyl-N-phenylurea, which is a substituted urea which also contains a hydrogen atom, is form the ...

ZHINKIN, D.Ya.; MAL'NOVA, G.N.; GORISLAVSKAYA, ZH.V.

Simultaneous ammonolysis of triorganochlorosilanes with different radicals at the silicon atom. Zhur. ob. khim. 35 no.5:907-909
My '65. (MIRA 18:6)

ZHINKIN, D.Ya.; MAL'NOVA, G.N.; POLONSKAYA, A.P.; ANDRIANOV, K.A.

Simultaneous hydrolytic condensation of trimethyl-,
triethylchlorosilanes, and phenyltrichlorosilane. Zhur. ob.
khim. 35 no.5:909-911 My '65.
(MIRA 18:6)

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Hexapibutyltriethylammonium salts are produced in the following reactions:

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APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064820003-6"

MORGUNOVA, M.M.; ZHINKIN, D.Ya.

Effect of the catalyst on the rate of transamination on polyalkyl
cycloalazanes with aliphatic diamines. Plast. massy no. 5,
16-17 '65.
(MIRA 18:6)

L 2168-66 EWT(m)/EPF(c)/EWP(j) RM
ACCESSION NR: AP5024501

UR/0191/65/000/010/0015/0016 4/1
678.84

AUTHOR: Semenova, Ye. A.; Makovskaya, T. N.; Zhinkin, D. Ya.; Andrianov, K. A. 44.55

TITLE: Rearrangements of methylcyclosilazanes 44.55

SOURCE: Plasticheskiye massy, no. 10, 1965, 15-16

TOPIC TAGS: organosilicon compound, chemical reaction, chemical equilibrium, recombination reaction, chemical reaction kinetics, catalytic polymerization, catalysis

ABSTRACT: The effect of electrophilic catalysts at different temperatures on the mutual rearrangements of methylcyclosilazanes was investigated to explain previously obtained data. The conversion of hexamethylcyclotrisilazane (A) and octamethylcyclotetrasilazane (B) by the action of 2% ammonium sulfate of 1% concentrated sulfuric acid was studied in the 25-245 C range. Mutual rearrangement of the two cyclosilazanes occurred, and at temperatures above 150 C polymethylsilazanes were formed. The latter polymers were viscous yellow liquids having a cyclo-linear structure. Ammonium sulfate was most active in the

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L 2168-66

ACCESSION NR: AP5024501

ring-contracting reaction and promoted rearrangement only at temperatures above 100 C. The composition of the products obtained by action of sulfuric acid on A or B at a given temperature was about the same. Orig. art. has: 2 figures

ASSOCIATION: None

SUBMITTED: 00

NR REF SOV: 003

ENCL: 00

SUB CODE: OC, *gc*

OTHER: 000

13
Card 2/2

AP5027811

AUTHORS: Zhinkin, D. Ya.; Morgunova, M. M.; Andrianov, A. A. (Academy of Sciences of the USSR)

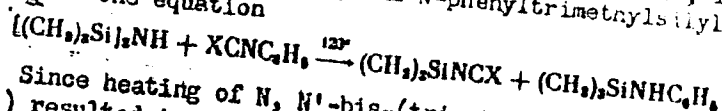
SOURCE CODE: UR/0020/33/63/00/011/0113

Reaction of hexamethyl disilazane with phenylisocyanate and phenylthioisocyanate compound

SOURCE: AN SSSR. Doklady, v. 165, no. 1, 1965, 114-116

TOPIC TAGS: silicon compound, silane, organic synthetic process, organic isocyanate compound

ABSTRACT: Reaction of equimolecular amounts of hexamethyldisilazane (I) with phenylisocyanate (II) and phenylthioisocyanate (III) has been investigated at high temperatures. Under these conditions, instead of trialkylsilylurea expected by the authors (D. Ya. Zhinkin, M. M. Morgunova, et al., DAN, 158, 641, 1964), trimethylsilyl-isocyanate (IV) (or thioisocyanate (V)) and N-phenyltrimethylsilylamine (VI) were formed, according to the equation



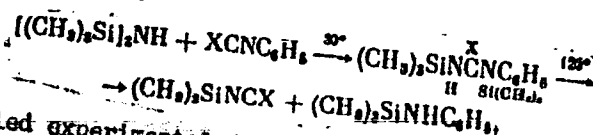
where X = O, S. Since heating of N, N'-bis-(trimethylsilyl)-N'-phenylurea (VII) (or thiourea (VIII)) resulted in formation of the same products, it was assumed that VII (or VIII) is an intermediate, formed in the first stages of interaction of I with II

UDC: 547.245:547.239:547.343

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AP5027011

(or III), according to equation



where X = O, S. Detailed experimental data for the preparation of following compounds are given and their physical properties are reported: IV, b.p. 91-92C/760 mm; VI, b.p. 205-206C/760 mm; V, b.p. 143C/760 mm; VIII, m.p. 100-101C. Orig. art. has: 2 equations.

SUB CODE: 07/

SUBM DATE: 19Jan65/

SOV REF: 001/

OTH REF: 004

Card 2/2

00200-67 EMT(m)/EMP(j) IJP(c) HW/RM
 ACC NR: AP6031748 SOURCE CODE: UR/0191/66/000/007/0023/0025

AUTHOR: Zhinkina, L. N.; Vishnevskiy, F. N.; Zhinkin, D. Ya.;
 Zubkov, I. A.

ORG: none

TITLE: Reaction of butyl orthotitanate with phenyl methylphosphono-
 chloridate or phosphorus oxychloride

SOURCE: Plasticheskiye massy, no. 7, 1966, 23-25

TOPIC TAGS: butyl orthotitanate, phenyl methylphosphonochloridate,
 phosphorus oxychloride, polyorganophosphorustitanoxane, TITANATE,
 PHENYL COMPOUND, POLYMER STRUCTURE, CHEMICAL REACTION

ABSTRACT: A study has been made of the reaction of butyl orthotitanate
 (I) with phenyl methylphosphonochloridate (II) as with phosphorus
 oxychloride (III). At up to 90C, I and II taken in a 1/3 ratio react
 as follows:

$$\begin{aligned} & \text{Ti}(\text{OC}_4\text{H}_9)_4 + 3\text{CH}_3\text{PO}(\text{OC}_6\text{H}_5)\text{Cl} \longrightarrow \\ & \longrightarrow \text{Cl}_2\text{Ti}(\text{OC}_4\text{H}_9)_2 + 3\text{CH}_3\text{PO}(\text{OC}_6\text{H}_5)(\text{OC}_4\text{H}_9) \end{aligned}$$

At above 100C the reaction products undergo condensation to form a
 polymer with a titanoxane backbone. The presumed structure of the

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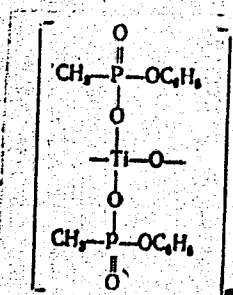
UDC: 678.85+678.868.24

38
37
B

L 06200-67

ACC NR: AP6031748

polymer is:



A polymer with a high molecular weight is isolated by dissolving the reaction mixture in acetone and precipitating with water. I and III react in a similar manner; at higher reaction temperatures (170—180C) a cross-linked phosphorus-containing polyorganotitanoxane is formed. The polymer contains 1 titanium atom per phosphorus atom, and 1 butoxy group per 3 titanium atoms. The synthesized polymers withstand temperatures of 190—200C. Orig. art. has: 3 figures.

SUB CODE: 07, 11/14 SUBM DATE: none/ ORIG REF: 007/ OTH REF: 002

Card 2/2 afn

L 36503-66 EWT(m)/EWP(j) RM

ACC NR: AP6017877

(A)

SOURCE CODE: UR/0062/66/000/005/0855/0861

AUTHOR: Zhinkin, D. Ya.; Morgunova, M. M.; Popkov, K. K.; Andrianov, K. A.

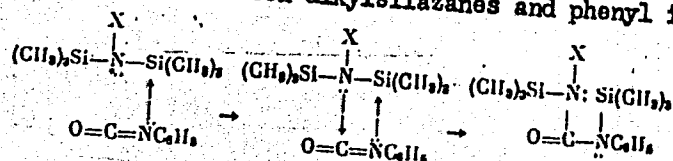
ORG: none

TITLE: Reactions of alkylsilazanes with organic isocyanates

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 5, 1966, 855-861

TOPIC TAGS: organic isocyanate compound, organosilicon compound, urea compound,
chemical reaction

ABSTRACT: Reactions of organic isocyanates with various organosilazanes containing a hydrogen or a radical at the nitrogen atom were studied. The reaction of phenyl isocyanate and N-methylhexamethyldisilazane or phenyl isocyanate and N-diethyltrimethylsilylamine at 30-35° and atmospheric pressure involves rupture of the Si-N bond and the addition of the silyl group (CH₃)₃Si to the nitrogen of the isocyanate group, with formation of the corresponding urea derivatives. The following mechanism is proposed for the reactions between alkylsilazanes and phenyl isocyanate:



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UDC: 661.518.5

L 36503-66

ACC NR: AP6017877

where $X = H, CH_3$. The reaction of N,N' -trimethylsilyl- N' -phenylurea with phenyl isocyanate produced trimethylsilyl isocyanate and N,N' -diphenyl- N' -trimethylsilylurea. The following six new compounds were isolated and characterized: N,N' -bis(trimethylsilyl)- N' -phenylurea, N -phenyl- N' -phenyltrimethylsilylurea, N -trimethylsilylmethyl- N' -trimethylsilylphenylurea, N,N' -bis(trimethylsilylphenyl)- N' -methyldiurea, N -diethyl- N' -phenyltrimethylsilylurea, and N -diethyl- N' -phenyl- N'' -trimethylsilylphenyldiurea. Their IR spectra are given. Orig. art. has: 3 figures.

SUB CODE: 07/ SUBM DATE: 29Nov63/ OTH REF: 008

Card 2/2/72 LP

L 23841-66 EWT(m)/EWP(j)/T IJP(c) JD/WJ/JW/RM
 ACC NR: AP6007120 SOURCE CODE: UR/0079/66/036/002/0350/0352

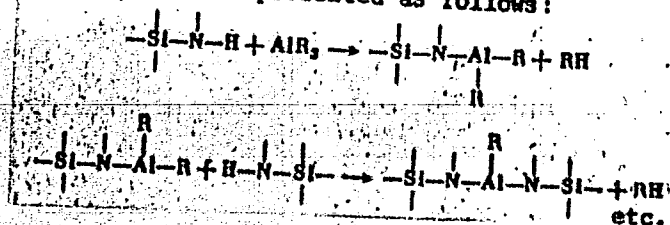
AUTHOR: Zhinkin, D. Ya.; Korneyeva, G. K.; Korneyev, N. N.; Sobolevskiy, M. V.
 ORG: none

TITLE: Reaction of trialkyl(aryl)aminosilanes and hexaalkyldisilazanes with trialkylaluminum ¹₄₂
 aluminum _B

SOURCE: Zhurnal obshchey khimii, v. 36, no. 2, 1966, 350-352

TOPIC TAGS: organoaluminum compound, organosilicon compound, chemical reaction

ABSTRACT: The reaction of organosilazanes and organoaminosilanes (hexamethyl- and hexaethyldisilazanes, triethyl- and triphenylaminosilanes) with trialkylaluminum (triethyl- and triisobutylaluminum) was studied and found to form alkylaluminum organosilylamines. The reaction can be represented as follows:



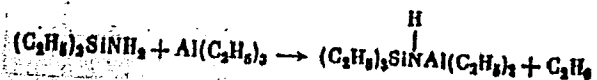
Card 1/2

UDC: 546.287 + 547.236.2

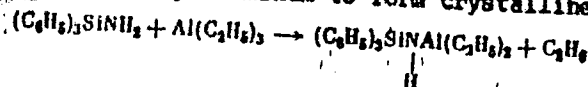
L 23841-66

ACC NR: AP6007120

The composition of the organosilylamines produced depends on the molar ratio of the reactants. The reaction of triethylaminosilane with triethylaluminum (1:1), the reaction occurs as follows:



Triphenylsilylamine readily reacts with triethylaluminum to form crystalline triphenylsilylaminodiethylaluminum:



Orig. art. has: 4 formulas.

SUB CODE: 07/

SUBM DATE: 21Jan65/

ORIG REF: 005/

OTH REF: 003

Card 2/2

ZHINKIN, D.Ya.; MAL'NOVA, G.N.; GORISLAVSKAYA, Zh.V.

Coammonolysis of trimethylchlorosilane and phenyl trichloro-
silane. Plast. massy no.11:18 '65. (MIRA 18:12)

L 16512-66 EwT(m)/EMP(j) RM

ACC NR: AP6001496

(A)

SOURCE CODE: UR/0191/65/000/012/0017/0019

AUTHORS: Zhinkin, D. Ya.; Mal'nova, G. N.; Polonskaya, A. P.; Sobolevskiy, M.V.

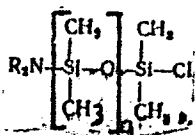
ORG: none

TITLE: Synthesis of α, ω -bis-(hexamethyldisilazo)polydimethylsiloxanes and investigation of their properties

SOURCE: Plasticheskiye massy, no. 12, 1965, 17-19

TOPIC TAGS: siloxane, organosilicon compound, hydrolysis, organic synthetic process

ABSTRACT: Hexamethyldisilylazochloropolydimethyl siloxanes (I) of general structure 1



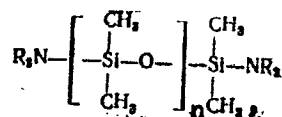
Card 1/2

UDC: 678.84 Z

L 16512-66

ACC NR: AP6001496

where $n = 1, 3, 6$ and $R = (CH_3)_3Si$ were prepared by reacting corresponding α, ω -dichlorodimethyl siloxanes with sodium bis-(trimethylsilyl)amide. The work was done according to the method indicated by C. R. Krüger and E. G. Rochow (Angew. Chemie, 74, No. 14, 491-2, 1962). The products were hydrolyzed in two ways: 1) by titrating with aqueous ammonia and with theoretical amounts of water, and then trapping the evolved HCl with pyridine; 2) with excess of water, in an alkaline medium to yield α, ω -bis-(hexamethyldisilazo)-polydimethyl siloxanes (II) having the general structure



where $n = 3, 5, 7$, and 13. Yields, elementary analyses, and physical properties of I and II are tabulated. It was established that in I with $n > 3$, the N-Si bond is not hydrolyzable to any practical extent. Orig. art. has: 1 table and 4 structures.

SUB CODE: 07/

SUBM DATE: none/

ORIG REF: 001/

OTH REF: 003

Card 2/2 SM

ZHINKIN, G.

Mechanized delivery of lumber to the mine. Mast. ugl. 5 no.10:21
0 '56. (MLDA 9:12)

1. Rabotnik Karagandinskoy normativno-issledovatel'skoy stantsii.
(Karaganda Basin--Mine timbering)

ZHINKIN, G.N., dotsent, kand.tekhn.nauk

Effectiveness and permanency of electrochemical soil stabilization.
Trudy LIIZHT no.165:56-63 '59. (MIRA 13:6)
(Soil stabilization)

ZHINKIN, G.N., dots., kand. tekhn. nauk; PERETRUKHIN, N.A., st. nauchnyy
sotr., kand. tekhn. nauk; KARASEV, Ya.M., dots., retsenzent;
KASATKIN, A.I., inzh., retsenzent; KARPOV, K.N., dots., retsenzent;
YERMAKOV, K.A., red.

[Roadbed construction in permafrost regions] Sooruzhenie zemliano-
polotna zheleznykh dorog v raionakh vечноi mёрzloty; uchebnoe po-
sobie po kursu "Stroitel'stvo zheleznykh dorog" dlia studentov
dnevno, vechernego i zaocnogo obucheniia. Leningrad, Leningr.
in-t inzhenerov zhel-dor. transporta im. V.N.Obratzsova, 1961. 61 p.
(MIRA 16:3)

(Railroad engineering—Cold weather conditions)
(Frozen ground)

ZHINKIN, G.N.

Strengthening of the structural bonds in clay soils following
electrochemical consolidation. Koll.shur. 22 no.1:31-36 Ja-F
'60. (MIRA 13:6)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta.
(Clay) (Soil stabilization)

ZHINKIN, G.N. (Leningrad); BATURKIN, M.A. (Leningrad)

Using direct current and chemical additives in working
clayey soils. Osn., fund. 1 mekh. grun. 2 no.5:14-16

'60.

(Soil stabilization)

(MIRA 13:9)
(Clay)

ZHINKIN, G.N., kand.tekhn.nauk, dotsent

Studies of the thixotropy of clayey soils. Sbor. trud. LIIZHT
no.196:21-34 '62. (MIRA 16:9)

ZHINKIN, G.N., kand.tekhn.nauk, dotsent; BATURKIN, M.A., inzh.

Experience of using the electrochemical method for the industrial
treatment of clay soils. Trudy LIIZHT no.180:33-46 '61. (MIRA 15:7)
(Soil stabilization) (Railroad engineering)

ZHINEIN, G.N.

Study of the physicochemical processes arising in connection
with electroosmotic drainage of clayey soil. [Trudy] NII esn.
no. 50:28-37 '62. (MIRA 16:9)

ZHINKIN, G.N.; SERGEYENKOVA, K.K.

Study of methods of electric and chemical solidification of
soils. [Trudy] NII osn. no.50:38-44 '62. (MIRA 16:9)

ZHINKIN, G.N., kandidat tekhnicheskikh nauk.

Experience in using electrochemical soil reinforcement for stabilizing
roadbeds. Sbor. LIIZHT no. 144:64-79 '52. (MIRA 8:4)
(Railroads--Construction) (Soil stabilization)

ZHINKIN, G.M., kandidat tekhnicheskikh nauk, dotsent.

Some results of using electrochemical soil stabilization under
operating conditions. Sbor. LIIZET no.150:72-82 '56. (MLRA 9:11)
(Soil stabilization) (Railroads--Earthwork)

ZHINKIN, G.N., kand.tekhn.nauk, dotsent; ORLOV, V.Yu., inzh.

Operation of scrapers under winter conditions. Trudy LIIZHT
no.180:47-53 '61. (MIRA 15:7)
(Scrapers--Cold weather operations)
(Railroads--Earthwork)

ZHINKIN, G.N.

Strength of clay soils subjected to electrochemical treatment.
Dokl. AN SSSR 120 no. 4:857-858 Je '58. (MIRA 11:8)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta
im. V.N.Obrastsova. Predstavleno akademikom P.A.Rebinderom.

(Clay)
(Electrochemistry)

ZHINKIN, G.N., kand. tekhn. nauk.

Over-all mechanization of earthwork. Transp. stroi. 7 no.11:31-32
N '57. (MIRA 11:2)
(Railroads--Earthwork) (Earthmoving machinery)

~~ZHILKIN, G. P.~~ kand. tekhn. nauk, doc.

Improving the quality of clayey soils by using electrochemical
stabilization methods. Sbor. LITZHT no. 157:164-189 '59.

(Soil stabilization)

(MIR 12:11)

AUTHOR: Zhinkin, G. N.

SOV/20-120-4-46/67

TITLE: On the Strength of Clay Grounds Subjected to Electrochemical Solidification (O prochnosti glinistyykh gruntov, podvergnutykh elektrokhimicheskomu zakrepleniyu)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 4, pp.857-858 (USSR)

ABSTRACT: It was proved in many papers, that clay grounds can be drained and made water-resistive by this method and that they attain a higher degree of strength. The method was applied by the author to 5 objects for the purpose of solidifying soft ground of railroad track from 1948 to 1953. The investigation of ground cross-sections (monoliths) showed that an increased strength of ground particles spreads because of this treatment, and that the specific cohesion increases (Ref 1). The evidence resulting from studies on an operational scale substantiated the results of laboratory work (Refs 2, 3). In order to clarify the kind of modifications of ground properties in the course of time (the irreversibility of solidification) the treated objects were kept under observation for

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On the Strength of Clay Grounds Subjected to Electrochemical Solidification

SOV/20-120-4-46/67

some years and monoliths were taken from the anodic zone for investigation purposes. Although ground solidification is of an equal nature in the cathodic and intermediary zone, it has a somewhat smaller numerical value. Two granulometric analyses (aggregate analyses) conducted a) immediately after treatment, and b) some years later showed a solidification characteristic of all objects ("sandy agglomeration" = "opeschani-vaniye") which increased even after the termination of the electrochemical treatment. Table 1 shows the variations in the granulometric composition in the course of time. It can be seen that the amount of particles below 0,05 mm decreases while that of particles between 0,10 and 0,05 increases. The specific cohesion increased simultaneously, which was measured on a shearing-test apparatus (Table 1). The above given evidence tends to show a continuously progressive nature of the increase of strength of the treated ground and the formation of qualitatively new, water-resistive structural bindings, which are strengthened in the course of time. These processes are explained on the basis of conceptions originating from P. A. Rebinder (Ref 4). Towards the termination of electrochemical solidification the ground structure is of

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SOV/20-120-4-46/67

On the Strength of Clay Grounds Subjected to Electrochemical Solidification

a coagulation-crystallization character, and the number of concretions is sufficiently high to ensure an irreversible modification of ground properties. However, by this process the structural solidification is not finished. A further transformation of the coagulation binding into crystallization bindings proceeds, although more slowly than during the electrochemical treatment. In references 3 and 5 the chemical nature of these phenomena was considered to consist of secondary reactions, due to which calcium- and magnesium carbonates are produced in the cathodic zone, whereas in the anodic zone complex aluminum- and iron salts are formed as oversaturated solutions. The growth of their crystals and the formation of crystal combination results in a cementation of the ground and gradually causes an irreversible increase of its strength. There are 1 table, and 5 references, 4 of which are Soviet.

ASSOCIATION: Leningradskiy institut inzhenerov zheleznodorozhnogo transporta im. V. N. Obratzova (Leningrad Engineering Institute of Railroad Transport imeni V. N. Obratsov)

Card 3/4

On the Strength of Clay Grounds Subjected to Electrochemical Solidification

SOV/20-120-4-46/67

PRESENTED: February 6, 1958, by P. A. Rebinder, Member, Academy of Sciences, USSR

SUBMITTED: December 13, 1957

1. Soils--Mechanical properties
2. Soils--Stabilization
3. Soils--Test methods
4. Soils--Electrochemistry

Card 4/4

ZHINKIN, G.N. (Leningrad); KOGAN, S.A. (Leningrad); KALGANOV, V.F. (Leningrad);
BOLDYREV, V.N. (Leningrad)

Practices in the electrosilicization of soils in Leningrad.
Osn., fund. i mekh. grun. 7 no. 1:5-6 '65.

(MIRA 18:4)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064820003-6

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064820003-6"

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064820003-6

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064820003-6"

ZHINKIN, R. L.

"Correlation Between the Prvisory and Definitive Organs of ASCIDIA
During their Metamorphosis," Dokl. AN SSSR 24, No . 6, 1939

Dept. Biol., 2nd Lenngrad med. Inst.,. Dept. Gen. Morphology, Lenngrad, VLEN,

ZHINKIN, Lev Nikolayevich; RUMYANTSEV, P.P., nauchnyy red.; VOROB'YEV,
G.S., red. izd-va; GURDZHIYEVA, A.M., tekhn. red.

[Regeneration of cells in the organism] Obnovlenie kletok v
organizme. Leningrad, Ob-vo po raspr. polit. i nauchn. znani.
RSFSR, 1962. 33 p. (MIRA 16:2)

{REGENERATION (BIOLOGY)) (CELLS)

ZHINKIN, L.; ANDREYEVA, L.

Nuclear multiplication and DNA synthesis in the developmental process of somatic musculature. Dokl. AN SSSR 149 no.1:185-188
Mr '63. (MIRA 16:2)

1. Institut tsitologii AN SSSR. Predstavleno akademikom
Y.A.Orlovym.
(Cell nuclei) (Nucleic acids) (Muscle)

ZHINKIN, L.

"Influence of X-Rays on the Regeneration in Lumbriculus Variegatus Gr.,"
Transactions of Leningrad Institute of Experimental Medicine, 3, pp 71-100, 1934.

ZHINKIN, I.

"Inflammatory Response of the Connective Tissue in thre Amphioxus,"
Dokl. AN SSSR, 45, No. 2, 1944

DEpt. Morphology VIEM.

ZHINKIN, L.

"Regeneration of Extremities in Periplaneta Orientalis," Dokl. AN SSSR,
48, No. 7, 1945; Tomsk State Univ. im. Kuybyshev

ZHINKIN, L. N.

PA 61/49T45

USSR/Medicine - Transplantation
Medicine - Muscles

Nov 48

"Transplantation of Muscles From a Dead to a Live
Rabbit," L. N. Zhinkin, 3 1/3 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 1

Muscular fiber forms in regeneration wherever possible and in the presence of least resistance. Transplanted tissues were found to change into muscular fiber and phenomena of nuclear degeneration were noted at times only about the borders of the tissue. Submitted by Acad L. A. Orbell
27 Aug 48.

61/49T45

ZHINKIN, L.

PA 55/49T60

USSR/Medicine - Muscles -
Medicine - Regeneration

Nov 48

"Regeneration of Muscular Tissue as It Is
Influenced by the Age of Mice," L. Zhinkin, 24 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 2

Operations on neonatal mice give rise to belief
that myoblasts take an active part in regeneration
of muscular tissue. Obviously, this method of
regeneration is a characteristic of less differ-
entiated muscular tissue. Submitted by L. A.
Orbell 27 Aug 48.

55/49T60

ZHINKIN, L. N.

35228

Petr Pavlivich Ivanov. (Embriolog. 1878-1942). Uchen. Zapiski (Leningr. Gos.

Un-T Im. Zhanova), Seriya Biol. Navk, Vyp. 20, 1949, S. 6-17, S. Portr.-

Bibliogr: "Spisok Rabot P. P. Iavanova", 31 Nazv.

SO: Letopis Zhurnal 'nykh Statey Vol. 34, Moskva, 1949

ZHINKIN, L. N.

35216. Issledovaniya Nad Regeneratsiey U Sibirskogo Tritona Eynobius Kaiserlingii Uchen. Zapiski (Leningr. Gos. Un-T Im. Zhdanova), Seriya Biol. Nauk, VYP. 20, 1949, s. 275-300.---Bibliogr: s. 297-300.

80: Letopis' Zhurhal'nykh Statey, Vol. 48, Moskva, 1949

ZHINKIN, L.

PA 39/49T79

USSR/Medicine - Plankton
Medicine - Marine Organisms

Mar 49

"Early Stages of Development in Tiarepsis,"
L. Zhinkin, Leningrad State U imeni A. A.
Zhdanov, 4 pp

"Dok Ak Nauk SSSR" Vol LXV, No 3

Discovered large number of hydromedusae Tiarepsis
in plankton at Murmansk Biological station.
Traced early stages in development of metagenetic
hydromedusae. Submitted by Acad Ye. N.
Pavlovskiy, 29 Jan 49.

39/49T79

ZHINKIN, L.N.

Petr Pavlovich Ivanov, Uch.sap.Len.un.no.113:5-17 '49.
(MIRA 10:3)

(Ivanov, Petr Pavlovich, 1878-1942)

ZHINKIN, L.N.

Research on regeneration in the Siberian triton *Hydrotus kaiserlingi*.
Uch.zap.Len.un. no.113:275-300 '49. (MIRA 10:3)

(AMPHIBIA) (REGENERATION (BIOLOGY))

TOP AND END SHEETS		PROCESSING AND PROPERTY DATA	
BC		A3 8	
<p>Transplantation of dead muscle in rabbits. L. N. Zhinkin [C. N. Acad. Sci. U.S.S.R., 1959, 33, 35-36]. Rabbit muscle soaked in 5% formalin for 5 days, washed in distilled water for 3 days, used implanted into living rabbit muscles. The results by frozen tissue containing stray strands of muscle fibers after 30 days; fragments of muscle taken 2-3 days after death, also verified by boiling with Ringer solution, become infiltrated with muscle fibres initially growing between the microtome cuts; the dead fibres are phagocytized; 60-80 days after transplantation the dead tissue is replaced by new muscle fibres, with no scar formation only in its central portion. The results of implantation of frozen muscle are similar to the foregoing, although somewhat degeneration of the implants proceeds faster than does phagocytosis in this case.</p>			
MATERIALS INDEX		COMMON ELEMENTS	
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION		E2-M-2-1-1-1-1	
SUBJECT SYNONYM		SUBJECT SYNONYM	
SYMBOL NO.		SYMBOL NO.	
SYMBOL NO.		SYMBOL NO.	

17/11/11, IV
ZHINKIN, L.H.; KORSKOVA, G.F.

Mitotic changes in symmetric retinas in unilateral burns. Doklady
Akad. nauk SSSR 81 no.5:965-968 11 Dec 51. (CML 21:5)

1. Presented by Academician Ye.N. Pavlovskiy 13 October 1951.

ZHINKIN, L.N.; KORSKOVA, G.F.

Reactive modifications in the symmetric retinas in white rats.
Doklady Akad. nauk SSSR 81 no.6:1155-1157 21 Dec 51. (CIBL 21:5)

1. Presented by Academician Ye.N. Pavlovskiy 11 September 1951.
2. Zoological Institute, Academy of Sciences USSR.

1. ZHINKIN, L.; KORSKOVA, G.

2. USSR 600

4. Priapulidae

7. Early development phases of *Halicryptus spinulosus*, Dokl. AN SSSR, 88, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

ZHINKIN, L. N.

SVETLOV, P.G.; ZHINKIN, L.N.; ZAVARZIN, A.A.

In memory of Fedor Mikhailovich Lazarenko, Vest AMN SSSR no.2:
77-78 '54. (MLRA 7:7)
(LAZARENKO, FEDOR MIKHAILOVICH, 1888-1953)

SHISHKIN, B.K., professor; ROMANKOVA, A.G., kandidat biologicheskikh nauk, starshiy nauchnyy sotrudnik; MARKOV, G.S., doktor biologicheskikh nauk, dotsent; DANILEVSKIY, A.S., kandidat biologicheskikh nauk, dotsent; SHTEYNBERG, D.M., doktor biologicheskikh nauk; LOMAGIN, A.G. aspirant; SELL'-BERMAN, I.Y., mladshiy nauchnyy sotrudnik; ZHINKIN, L.N., doktor biologicheskikh nauk, professor; IPATOV, V.S., student kursa; KOZLOV, V.Ye., kandidat biologicheskikh nauk, starshiy nauchnyy sotrudnik; KARTASHEV, A.I., kandidat biologicheskikh nauk, starshiy nauchnyy sotrudnik; NITSENKO, A.A., starshiy nauchnyy sotrudnik; VASILEVSKAYA, V.K., doktor biologicheskikh nauk, dotsent; RYUMIN, A.V., kandidat biologicheskikh nauk; NAUMOV, D.V., kandidat biologicheskikh nauk, mladshiy nauchnyy sotrudnik; KHOZATSKIY, L.I., kandidat biologicheskikh nauk, dotsent; GOROBETS, A.M., kandidat biologicheskikh nauk, starshiy nauchnyy sotrudnik; GODLEVSKIY, V.S. assistant; GERBIL'SKIY, N.L., doktor biologicheskikh nauk, professor; ALEKSANDROV, A.D., professor; KOLODYAZHNYI, V.I.; TURBIN, N.V.; ZAVADSKIY, K.M.

[Theory of species and the formation of species]. Vest.Len.un. 9
no.10:43-92 0 '54. (MLRA 8:7)

1. Chlen-korrespondent Akademii nauk SSSR (for Shishkin, Aleksandrov)

(Continued on next card)

SHISHKIN.B.K., professor; ROMANKOVA.A.G., kandidat biologicheskikh nauk, starshiy nauchnyy sotrudnik, and others.

[Theory of species and the formation of species]. Vest.Len.un. 9
no.10:43-92 0 '54. (MLRA 8:7)

2. Leningradskiy gosudarstvennyy universitet (for Shishkin, Romankova, Markov, Ipatov, Kozlov, Kartashev, Godlevskiy, Gerbil'skiy, Aleksandrov)
3. Zoologicheskiy institut Akademii nauk SSSR (for Shteynberg, Naumov)
4. Kafedra entomologii Leningradskogo gosudarstvennogo universiteta (for Danilevskiy).
5. Kafedra darvinizma Leningradskogo gosudarstvennogo universiteta (for Lomagin, Gorobets).
6. Kafedra geobotaniki Leningradskogo gosudarstvennogo universiteta (for Nitsenko).
7. Kafedra botaniki Leningradskogo gosudarstvennogo universiteta (for Vasilevskaya).
8. Kafedra zoologii pozvonochnykh Leningradskogo gosudarstvennogo universiteta (for Khosatskiy).
9. Leningradskoye otdeleniye Vsesoyuznogo instituta udobreniy, agropochvovedeniya i agrotekhniki (for Sell'-Bekman)
10. Institut eksperimental'noy meditsiny Akademii meditsinskikh nauk SSSR (for Zhinkin)

(Origin of species)

ZHINKIN, L. N. and MIKHAYLOV, V. P.

On 'The New Cell Theory' (by O. B. Lepeshinskaya), Arkhir. Anatomii, Gistologii i Embriologii, 32, No. 2, 66, 1955.

Translation, Science, v. 128, 25 Jul 1958.

Moscow Oblast Sci. Res. Inst. of Obstetrics and Gynecology.

ZHINKIN, L.N.; MIKHAYLOV, V.P. (Leningrad)

"New cellular theory" and its foundation in practice. Usp. sov. biol. 39 no.2:228-244 Mar-Apr '55. (MIR 8:7)
(CYTOLOGY,
Lepeshinskaja's theory)

Translation W-31624, 30 Jan 56

ZHINKIN, L.N.

Characteristics of development and the systematic position of
Priapulida. Uch.zap.Fed.inst.Gerts. 110:129-139 '55.(MLRA 9:7)
(Gephyrea)

USSR/Human and Animal Morphology. Pathological Anatomy

S-5

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 92887

Author : Zhinkin L.N., Chekulayeva L.I.

Inst : Institute for Experimental Medicine, Acad. of Medical Science,
USSR

Title : Influence of Functional Disturbance of the Brain on
Epithelium of the Skin and Cornea of the Eye

Orig Pub : Yezhegodnik. In-t eksperim. med. Akad. med. nauk SSSR, 1955,
L., 1956, 376-380

Abstract : With impairment of the higher nerve activity in rats histo-
logical changes of the skin of the back, ears, soles, and
the cornea of the eye were not demonstrated. The extent of
mitosis in the epithelium of the cornea proved almost iden-
tical in test and control animals; only rats with an exci-
table nervous system showed increased mitosis. With appli-
cation of a punctated burn on the cornea of the rat with an
"inhibited" type of reaction there was observed some increase

Card : 1/2

USSR/Human and Animal Morphology. Pathological Anatomy

S-5

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 92887

in the mitotic activity in the first twenty-four hours of the experiment, and then it decreased. With application of a tourniquet on the hind extremity of the rat mitotic activity of the epithelium of the cornea decreased at first and later increased. Apparently an adaptation to the continuous action of an irritant gradually occurred in animals. In rats with a predominantly inhibitory type of reaction the inhibition itself appeared to be an adaptation to a constantly acting irritant, which did not lead to a change in the mitotic activity; in irritated animals over-activity of the cortical processes caused an increase in mitosis, i.e., a reaction contrary to that usually observed with a transitory effect of electric current. -- Ya.Ye. Khosin

Card : 2/2

GRACHEVA, N.D.; ZHINKIN, L.N.; SECHERVAN', E.I.

Using liquid emulsions in histoautoradiography. Med.rad. 1 no.2:
87-93 Mr-Apr '56. (MIRA 9:9)

1. Iz patologoanatomicheskoy laboratorii (zav. L.V.Funshteyn)
TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo
instituta (dir. - prof. M.N.Pobedinskiy) Ministerstva zdravookhra-
neniya SSSR.

(PHOTOGRAPHY,

auto-impression on photographic plate with liquid
emulsions of tissue sections labeled with radioisotopes
(Rus))

(HISIOLOGY,
same)

(ISOTOPES,
same)

ZHINKIN, L.N.

Inclusion of phosphorus-32 and sulfur-35 into epithelium of the tongue and small intestine is studied by the method of radioautography. L. N. Zhinkin and N. D. Gracheva. Doklady Akad. Nauk SSSR, 106, 546-7 (1956). White rats or rabbits were given ^{32}P -labeled methionine or ^{35}S -labeled cysteine. The tongue and small intestine epithelium were then examined by the radiographic technique (photographs shown) on sections which were coated with NIKFI type B phosphor emulsion. Inclusion of methionine parallels the viability of the cells in a given tissue and the intensity of their multiplication. The results substantiate the physical findings (cf. Lohman, et al., C.A. 43, 2053).

G. M. Kozlovskiy

Digest-B-99030

USSR / Human and Animal Physiology. Sense Organs.
Vision.

T

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102304.

Author : Zhinkin, L. N.

Inst : Leningrad Society of Naturalists

Title : The Inclusion of Methionine with Marked S³⁵ Into
the Developing Eye Lens.

Orig Pub: Tr. Leningr. o-va yestestvoispyt., 1957, 73, No 4,
14-18.

Abstract: An investigation was conducted by the method of
radioautography with utilization of a fluid emul-
sion of the "R" type. The eyes of 15-day old
embryos of rats and 45-day old embryos of cats
served as material. Methionine, with marked S³⁵
from a calculation of 0.5 mcuries per 1 kilogram,
was introduced subcutaneously to a pregnant cat.

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USSR / Human and Animal Physiology. Sense Organs.
Vision.

T

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102304.

Abstract: Methionine, from a calculation of 180 mcurie per animal was introduced intraperitoneally to a rat. 24 hours after introduction the greatest inclusion of S^{35} was discovered in the epithelium of the lens (L) and the transitionally equatorial zone; the least, in the central part. In the central nucleus there was the least amount of S^{35} . Computation, conducted on a trace autograph (short exposure) also showed a decrease of the intensity of inclusion from the equator towards the center, and coincided with the results obtained on contrast autographs (long exposure). The nuclei of fibers L absorbed more S^{35} than did the cytoplasm, which was dependent on the physiological state and not on area. The developing L absorbed S^{35} .

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USSR / Human and Animal Physiology. Sense Organs.
Vision.

T

Abs Jour: Ref Zhur-Biol, No 22, 1958, 102304.

Abstract: considerably more intensively than the adult one. The inclusion was proportional to the histologic differentiation of the tissues and, therefore, it was greatest in the epithelium of L at the equator, i.e., in the cambial zone. This allows judging the rapidity of protein renovation. The discovered regularities of S35 distribution in the L of embryo, apparently reflect the general regularities of the intensity of inclusion into cells, which possess varied degrees of differentiation. --
L. A. Katsnel'son.

Card 3/3

ZHINKIN, L.N. (Leningrad)

Incorporation of S^{35} -labeled methionine in a developing crystalline lens [with summary in French]. Trudy Len. ob-va est. 73 no. 4:14-18 '57. (MIRA 11:6)

1. Otdel gistologii instituta eksperimental'noy meditsiny AMN SSSR.
(Crystalline lens) (Methionine)

ZHINKIN, L.N. (Leningrad, TSentr, Kanal Krunshsteyn, d.11, kv.9)

Experimental study of the development of the spinal cord; a survey
of the literature [with summary in English]. Arkh.anat.gist. i
embr. 35 no.3:101-114 My-Je '58 (MIRA 11:7)
(SPINAL CORD)

ZHINKIN, L.N.; ORLOVA, G.N.; SIROTINA, M.Yu.

Inclusion of methionine in developing and regenerating somatic muscles [with summary in English]. Arkh.anat.gist. 1 embr. 36 no.1:32-38 Ja '59. (MIRA 12:3)

1. Laboratoriya gistologii (zav. - prof. L.N. Zhinkin) Instituta eksperimental'noy meditsiny AMN SSSR. Adres avtora: Leningrad, Kirovskiy pr., 69/71., Institut eksperimental'noy meditsiny AMN SSSR.

(MUSCLES, metab.

methionine, inclusion of prep. labeled by radio-sulfur during regen. & develop. (Ru.))

(METHIONINE, metab.

musc., inclusion of radiosulfur-labeled methionine during regen. & develop. (Ru.))

KHARAUZOV, N.A., prof., glavnyy red.; MIKHAYLOV, V.P., prof., zamestitel' glavnogo red.; BIRYUKOV, D.A., prof., otv.red.; AVSTIKYAN, B.G., doktor biol.nauk, red.; ANICHKOV, N.N., akademik, red.; ANICHKOV, S.V., prof., red.; ARBUZOV, S.Ya., prof., red.; VESSELKIN, P.N., prof., red.; VOYNO-YASENETSKIY, M.V., prof., red.; DANILOV, I.V., kand.biol.nauk, red.; ZHABOTINSKIY, Yu.M., prof., red.; ZHINKIN, L.N., prof., red.; IL'IN, V.S., red.; IOFFE, V.I., prof., red.; KARASIK, V.M., prof., red.; KUPALOV, P.S., prof., red.; MANINA, A.A., kand.med.nauk, red.; NEYFAKH, S.A., doktor biol.nauk, red.; RIKKL', A.V., prof., red.; SVETLOV, P.G., prof., red.; SMORODINTSEV, A.A., prof., red.; CHISTOVICH, G.N., doktor med.nauk, red.; BESEDIN, I.K., tekhn. red.

[Yearbook of the Institute of Experimental Medicine of the Academy of Medical Sciences of the U.S.S.R. for 1958] Ezhegodnik za 1958 god. Leningrad, 1959. 538 p. (MIRA 14:1)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut eksperimental'noy meditsiny. 2. Chleny-korrespondenty Akademii meditsinskikh nauk SSSR (for Biryukov, Veselkin, Il'in, Ioffe, Karasik, Svetlov, Smorodintsev). 3. Deyatvitel'nyye chleny Akademii meditsinskikh nauk SSSR (for Anichkov, S.V., Kupalov). (MEDICINE, EXPERIMENTAL)

ZHINKIN, L.N.; ZAVARZIN, A.A. (Leningrad); DONDUA, A.K. (Leningrad)

Use of tritium-labeled compounds in autoradiography. TSitologia
2 no. 6:625-639 N-D. 1960. (MIRA 13:12)
(TRITIUM) (AUTORADIOGRAPHY)

ZHINKIN, L.N.; ZAVARZIN, A.A.

Radioautographic study of the incorporation of radioactive sulfur
of sodium sulfate, mercaptine and methionine. Biofizika 5 no. 6:734-
739 '60. (MIRA 13:10)

1. Institut eksperimental'noy meditsiny AMN SSSR, Leningrad.
(AUTORADIOGRAPHY) (SULFUR IN THE BODY)

ZHINKIN, L.N.

Stimulation of mitoses in the intestinal epithelium during painful stimulation of the tongue. Dokl. AN SSSR 134 no.3:694-696 S '60.

(MIRA 13:9)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A.I. Gertsena. Predstavleno akad. Ye.N. Pavlovskim.
(KARYOKINESIS) (PAIN) (INTESTINES)

ZHINKIN, L.H.

Distribution of S^{35} -cysteine in cells of the gastric mucosa of white rats. Dokl.AN SSSR 134 no.4:942-944 O '60.(MIRA 13:9)

1. Institut tsitologii Akademii nauk SSSR. Predstavleno akad.
Ye.N. Pavlovskim.
(CYSTEINE) (SULFUR IN THE BODY)

S/020/60/134/004/022/023
B016/B060

AUTHOR: Zhinkin, L. N.

TITLE: Distribution of S^{35} Cysteine in the Cells of Gastric Mucosa in
White Rats 4

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4,
pp. 942 - 944

TEXT: There are several indications that the substrata, in which S^{35} cysteine and methionine are contained, are different. The author wanted to clarify the characteristics of inclusion of S^{35} cysteine, and for this purpose studied its distribution in the stomach of white rats. There, he was able to check the inclusion in proteins, on the one hand, and that in sulfomucopolysaccharides, on the other, whereupon he compared his results with the inclusion dynamics of sodium sulfate and methionine, in which the sulfur was tagged as well. The radioactive indicators were subcutaneously injected in doses of 0.5 μ curie/g each. The rats were decapitated 1 to 24 hours after injection. Both contrast- and trace autograms (Fig. 1) were

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Distribution of S^{35} Cysteine in the Cells of Gastric Mucosa in White Rats S/O20/60/134/004/022/023
B016/B060

produced on a liquid НИКФМ-Р (NIKFI-R) emulsion (for the method see Ref. 6). The varying inclusion intensity and distribution characteristics of S^{35} cysteine can be estimated on contrast autograms. In the author's interpretation of the autoradiographic data and the structural characteristics of the epithelial sections examined, the S^{35} of cysteine is intensely incorporated both by the cells of the germinal layer of the compound flat epithelium and by the mucilaginous cells of the gastric glands. The S^{35} of Na_2SO_4 is included (Refs. 7 - 10) in the sulfomucopolysaccharides. As may be seen from the autograms (Fig. 1d), it is stored by the mucilaginous cells of cardiac and fundal glands. The cells of cornified epithelium do not absorb any S^{35} at all, while the connective tissue does so only by relatively small amounts. After 24 h, the S^{35} of the sulfate is almost completely removed from the glands (Ref. 7). As contrasting to sulfate sulfur, the S^{35} of methionine is intensively stored by the cells of the germinal layer of the compound flat epithelium. The connective tissue incorporates very little S^{35} of methionine, much less than is the case after

Card 2/4

Distribution of S^{35} Cysteine in the Cells of Gastric Mucosa in White Rats S/020/60/134/004/022/023
B016/B060

the sulfate injection. The author states that, in a certain respect, there are both similarities and differences between the distribution of S^{35} of cysteine and the S^{35} of Na_2SO_4 in the mucous glands. The distribution dynamics of S^{35} in the compound flat epithelium, however, exhibits full agreement after the injection of both cysteine and methionine. As a result, the agreement between the incorporation of S^{35} cysteine and S^{35} methionine in tissues free from mucous glands proves the participation of the former in the protein synthesis. The author derives the conclusion from his results that S^{35} cysteine can be utilized as a radioactive indicator in the study of the synthesis and metabolism of proteins, and of sulfomucopolysaccharides as well. More research work, however, appears necessary in this field. There are 1 figure and 10 references: 3 Soviet, 3 US, 1 German, 2 French, and 1 Swiss. ✓

ASSOCIATION: Institut tsitologii Akademii nauk SSSR (Institute of Cytology of the Academy of Sciences, USSR)

Card 3/4

ZHINKIN, L.N.; SIROTINA, M.Ya.

- Dynamics of inclusion of ^{35}S labelled methionine and sodium sulfate in the epithelium of the stomach of white mice. Arkh. anat. gist. 1 embr. 40 no. 1:32-40 Ja '61. (MIRA 14:2)

1. Laboratoriya eksperimental'noy gistologii (zav. - prof. V.P. Mikhaylov) Instituta eksperimental'noy meditsiny AMN SSSR).
Adres avtorov: Leningrad, pr. Maklina, 32, Institut tsitologii A
AN SSSR.

(METHIONINE) (SULFUR METABOLISM) (STOMACH)

ZHINKIN, L.N.

"History of embryology in Russia (from the middle of the 19th to the middle of the 20th century)" by L.IA.Bliakher. Reviewed by L.N.Zhinkin. Arkh. anat. gist. 1 embr. 40 no.3:99-100 Mr '61. (MIRA 14:5)

1. Adres avtora Leningrad, prospekt Maklina, 32, Institut tsitologii AN SSSR.

(EMBRYOLOGY)

(BLIAKHER, L.IA.)

ALEKSANDROV, V.Ya., prof.; BRODSKIY, V.Ya.; BRONSHTEYN, A.A.;
BRUMBERG, Ye.M.; VAKHTIN, Yu.B.; VIHNIKOV, Ya.A.;
GAYTSKHOKI, V.S.; GOROSHCHENKO, Yu.L.; GULYAYEV, V.A.;
ZHINKIN, L.N.; ZAVARZIN, A.A.; ZALKIND, S.Ya.; ZBARSKIY,
I.B.; KATSNEL'SON, Z.S.; KOMISSARCHIK, Ya.Yu.; LEVIN, S.V.;
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